CLAIMS

I claim:

1. A surgical device for implantation in a patient for repairing a cartilage tissue in the patient, the surgical device comprising: a biocompatible scaffold with a plurality of biocompatible flexible members, and a plurality of biocompatible anchors, wherein the cartilage tissue has a defect, whereby the plurality of biocompatible anchors are attached to the plurality of flexible members and are shaped to seat into the tissue beneath or near the defect such that the biocompatible scaffold is retained within the defect.
2. A surgical fixation device for implantation in a patient for repairing a cartilage tissue in the patient, the surgical fixation device comprising: a biocompatible flexible member, a biocompatible stopping member, and a biocompatible anchor, wherein the cartilage tissue has a defect, whereby the biocompatible flexible member traverses at least partially through a cartilage repair device or implant or cartilage flap and the biocompatible stopping member is attached to the flexible member and does not traverse completely through the cartilage repair device or implant or cartilage flap and where the biocompatible anchor is attached to the flexible member and is shaped to seat into the tissue beneath or near the defect such that the cartilage repair device or implant or cartilage flap is retained within the defect.

3. A surgical fixation device for implantation in a patient for repairing a cartilage tissue in the patient, the surgical fixation device comprising: a biocompatible looped flexible member, a biocompatible stopping member, a locking device, and a biocompatible anchor, wherein the cartilage tissue has a defect, whereby the biocompatible flexible member traverses through a cartilage repair device or implant or cartilage flap and is threaded through the biocompatible anchor and is looped back and attached to itself

such that the portion of the flexible member that is attached can be adjusted such that the distance between the attachment point and the anchor is adjustable, whereby a biocompatible stopping device is positioned at or distal to the attachment point such that the stopping member does not completely pass through the cartilage repair device or implant or cartilage flap and whereby the biocompatible anchor acts as a pulley and is shaped to seat into the tissue near or beneath the defect such that when the free end of the biocompatible flexible member is pulled the looped portion of the biocompatible flexible member is under tension to retain the cartilage repair device or implant or cartilage flap within the defect whereby the attachment point is locked with the locking device onto the flexible member, thus, retaining the cartilage repair device or implant or cartilage flap within the defect.

4. A surgical fixation device for implantation in a patient for repairing a cartilage tissue in the patient, the surgical fixation device comprising: a biocompatible looped flexible member, a biocompatible wedging device, and a biocompatible anchor, wherein the cartilage tissue has a defect, whereby the biocompatible flexible member traverses through a cartilage repair device or implant or cartilage flap and is threaded through the biocompatible anchor and is looped back and attached to the cartilage repair device or implant or cartilage flap such that the anchor which is shaped to seat into the tissue near or beneath the defect acts as a pulley when the free end of the flexible member is pulled, thus, moving the cartilage repair device or implant or cartilage flap toward the defect, whereby once the cartilage repair device or implant or cartilage flap is positioned in the cartilage tissue defect, the wedging device is positioned such that the looped flexible member is wedged against itself and/or against the walls of the hole in the tissue, thus, locking the flexible member loop in place, thus, retaining the cartilage repair device or implant or cartilage flap within the defect.

5. A surgical fixation device for implantation in a patient for repairing a cartilage tissue in the patient, the surgical fixation device comprising: a biocompatible looped flexible member, a biocompatible sliding device, a biocompatible locking device, and a biocompatible anchor, wherein the cartilage tissue has a defect, whereby the biocompatible flexible member traverses through a cartilage repair device or implant or cartilage flap along the same path multiple times and is threaded through the biocompatible anchor at least two times and is looped back and attached to the cartilage repair device or implant or cartilage flap on one end of the flexible member forming at least two loops and is attached on the opposite end to the initial loop in such a manner that allows the distance between the attachment point and the anchor to be adjustable such that when the anchor which is shaped to seat into the tissue near or beneath the defect is seated it acts as a pulley when the proximal looped end of the flexible member is pulled, the distance between the attachment point and anchor decrease, thus moving the cartilage repair device or implant or cartilage flap toward the defect, whereby once the cartilage repair device or implant or cartilage flap is positioned in the cartilage tissue defect, the locking device engages, thus locking the assembly and retaining the cartilage repair device or implant or cartilage flap within the defect.

6. A method for repairing a defect in a cartilage tissue, comprising the steps of: providing a cartilage repair device comprising a biocompatible scaffold with a plurality of biocompatible flexible members, and a plurality of biocompatible anchors, having a delivery instrument; placing each anchor on the end of or within the delivery instrument and the flexible member within a slot of or along side the delivery instrument; inserting the cannulated needle or delivery instrument into the bone beneath or near the defect, placing the anchor into the bone to the appropriate depth as controlled by features on the delivery instrument to retain the scaffold within the

defect, removing the delivery instrument, leaving the anchor within the hole created in the bone, thus, retaining the scaffold in the defect.

7. A method for repairing a defect in cartilage tissue, comprising the steps of: providing a cartilage repair fixation device comprising: a biocompatible flexible member, a biocompatible stopping member, and a biocompatible anchor, having a cartilage repair device or implant or cartilage flap, having a delivery instrument, whereby the biocompatible anchor is placed on the end of or within the delivery instrument and the flexible member within or along side the delivery instrument, the anchor is delivered through a cartilage repair device or implant or cartilage flap into the bone beneath or near the defect, wherein the flexible member passes through the cartilage repair device or implant or cartilage flap and the stopping member does not traverse completely through the cartilage repair device or implant or cartilage flap, but rather the stopping member retains the cartilage repair device or implant or cartilage flap in the defect as the stopping device is pulled by the flexible member as the anchor is seated at the appropriate depth into the bone beneath or near the defect that can be controlled by features on the delivery instrument, thereby retaining the cartilage repair device or implant or cartilage flap in the defect.

8. A method for repairing a defect in cartilage tissue, comprising the steps of: providing a cartilage repair fixation device comprising: a biocompatible looped flexible member, a biocompatible stopping device, a biocompatible locking device, and a biocompatible anchor, having a cartilage repair device or implant or cartilage flap, having a delivery instrument, whereby the biocompatible anchor is placed on the end of or within the delivery instrument and passed through the cartilage repair device or implant or cartilage flap into the bone beneath or near the defect such that the distal portion of the looped flexible member passes through the cartilage repair device or implant or cartilage flap while the proximal portion does not pass through such that

the proximal free end of the flexible member is pulled causing the anchor through which the flexible member is threaded to act as a pulley, thus causing the looped portion of the flexible member to decrease in length, thereby moving the attachment point and, thus, moving the stopping member toward the anchor, thereby approximating the cartilage repair device or implant or cartilage flap to the defect, at which point the attachment point is locked in place with the locking device. The proximal flexible member loop is then trimmed to remove the excess material.

9. A method for repairing a defect in cartilage tissue, comprising the steps of: providing a cartilage repair fixation device comprising: a biocompatible looped flexible member, a biocompatible wedging device, and a biocompatible anchor, having a cartilage repair device or implant, having a delivery instrument, wherein one end of the flexible member is attached to the cartilage repair device or implant and the other end passes distally through the anchor and loops back proximally through the cartilage repair device or implant, whereby the anchor is placed on the end of the delivery instrument and passed and seated into the bone beneath or near the defect, allowing the free proximal end of the flexible member to be pulled, thus causing the cartilage repair device or implant to move toward the anchor, thus, toward the defect until the cartilage repair device or implant is approximated in the defect at which point a wedging device is placed in the hole in which the anchor and flexible member were placed such that the looped flexible member is wedged against itself and/or against the walls of the hole and/or against the wedging device, thereby retaining the cartilage repair device or implant in the defect. The proximal flexible member loop is then trimmed to remove the excess material.

10. A method for repairing a defect in cartilage tissue, comprising the steps of: providing a cartilage repair fixation device comprising: a biocompatible looped flexible member, a biocompatible sliding device, a biocompatible locking device, and a

biocompatible anchor, wherein the cartilage tissue has a defect, having a cartilage repair device or implant, having a delivery instrument, wherein the biocompatible flexible member traverses through a cartilage repair device or implant or cartilage flap along the same path multiple times and is threaded through the biocompatible anchor at least two times and is looped back and attached to the cartilage repair device or implant or cartilage flap on one end of the flexible member forming at least two loops and is attached on the opposite end to the initial loop in such a manner that allows the distance between the attachment point and the anchor to be adjustable such that when the anchor which is shaped to seat into the tissue near or beneath the defect is seated it acts as a pulley when the proximal looped end of the flexible member is pulled, the distance between the attachment point and anchor decreases and the distance between the sliding device and anchor decreases, thus moving the cartilage repair device or implant or cartilage flap toward the defect and moving the sliding device or slip knot toward the anchor, whereby once the cartilage repair device or implant or cartilage flap is positioned in the cartilage tissue defect and the flexible member has tension to retain the cartilage repair device or implant or cartilage flap, the locking device engages, thus locking the assembly and locking the cartilage repair device or implant or cartilage flap within the defect. The proximal flexible member loops are then trimmed to remove the excess material.